

Rec'd PCT/PTO 06 OCT 2004

510,675

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/086414 A1

- (51) International Patent Classification⁷: A61K 31/66, 31/075, C07F 9/02, C07C 43/205
- (21) International Application Number: PCT/US03/11008
- (22) International Filing Date: 10 April 2003 (10.04.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 10 Oct 04
60/371,782 10 April 2002 (10.04.2002) US
- (71) Applicant (for all designated States except US): ARIZONA BOARD OF REGENTS [US/US]; Arizona State University, Box 873511, Tempe, AZ 85287 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PETTIT, George, R. [US/US]; 6232 Bret Hills Drive, Paradise Valley, AZ 85253 (US). GREALISH, Matthew, P. [US/US]; 863 Sapphire Street, #13, San Diego, CA 92109 (US).
- (74) Agent: ROSENFELD, Susan, Stone; Fennemore Craig, Suite 2600, 3003 North Central, Phoenix, AZ 85012-2913 (US).
- (81) Designated States (national): CA, JP, US.
- (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).
- Declarations under Rule 4.17:
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations CA, JP, European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR)
 - of inventorship (Rule 4.17(iv)) for US only
- Published:
- with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: STRUCTURAL MODIFICATION OF RESVERATROL: SODIUM RESVERASTATIN PHOSPHATE

(57) Abstract: Described herein are novel compounds having antineoplastic and antimicrobial activity, obtained via structural modifications of resveratrol and combretastatin A-4, methods for synthesis of these compounds, and their use in pharmaceutical composition and for use in the treatment of mammals having cancer. Examples of the novel compounds are: (Z)- and (E)- 3,4',5-trimethoxystilbene (4a, 4b); (Z)- and (E)-3,5-dimethoxy-4'-hydroxystilbene (14c, 14d); (Z)- and (E)-3-hydroxy-4',5-dimethoxystilbene (14g, 14h); (Z)- and (E)-3,5-dihydroxy-4'-methoxy-stilbene (14k, 14l); sodium resverastatin dibenzyl phosphate ((Z)-3,5-dimethoxy-4-[O-bis(benzyl)phosphoryl]-stilbene) (14m); and sodium resverastatin phosphate (14n).

BEST AVAILABLE COPY

WO 03/086414 A1